

What is claimed is:

1. A method for providing multicast services in a radio communication system, the method comprising:

5 performing Internet protocol header compression to form header compressed data; and

transmitting the header compressed data in a point-to-point manner and in a point-to-multipoint manner depending upon a threshold value, to one or more users of the radio communication system.

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2. The method of claim 1, wherein the point-to-point manner is employed if a total number of users within a cell is below the threshold value.

3. The method of claim 1, wherein the point-to-multipoint manner is  
15 employed if a total number of users within a cell is at or above the threshold value.

4. The method of claim 1, wherein the Internet protocol header compression is respectively performed for each type of multicasting service to be provided.

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5. The method of claim 1, wherein the point-to-point manner is transmitting data from a single sending point to a single receiving point.

6. The method of claim 5, wherein the point-to-point manner is based  
25 upon a total number of users within a cell of the radio communication system.

7 The method of claim 5, wherein the point-to-point manner is performed in a serving radio network controller (SRNC).

5 8. The method of claim 7, wherein the transmitting by point-to-point manner is via a dedicated channel.

9. The method of claim 1, wherein the point-to-multipoint manner is transmitting data from a single sending point to multiple receiving points.

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10. The method of claim 9, wherein the point-to-multipoint manner is based upon a total number of users within a cell of the radio communication system.

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11. The method of claim 9, wherein the point-to-multipoint manner is performed in a controlling radio network controller (CRNC).

12. The method of claim 11, wherein the transmitting by point-to-multipoint manner is via a common channel.

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13. The method of claim 1, wherein the header compression is performed at a central location for each type of multicast service.

14. The method of claim 13, wherein the central location is a packet data  
25 convergence protocol (PDCP) entity.

15. The method of claim 14, wherein the PDCP entity is located within a controlling radio network controller (CRNC).

5        16. The method of claim 1, wherein a multicast service is a service that is provided to a specified plurality of users.

17. The method of claim 16, wherein the multicast service is multimedia broadcast / multicast service (MBMS).

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18. A method of receiving data of a multicast service in a radio communication system, the method comprising:

receiving header compressed data in a point-to-point manner and in a point-to-multipoint manner depending upon a threshold value; and

15        decompressing the received header compressed data to allow a user to access the multicast service.

19. The method of claim 18, wherein the point-to-point manner is receiving data by a single receiving point from a single sending point.

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20. The method of claim 19, wherein the point-to-point manner is based upon a total number of users within a cell of the radio communication system.

21. The method of claim 19, wherein the receiving by point-to-point  
25        manner is via a dedicated channel.

22. The method of claim 18, wherein the point-to-multipoint manner is receiving data by multiple receiving points from a single sending point.

5           23. The method of claim 22, wherein the point-to-multipoint manner is based upon a total number of users within a cell of the radio communication system.

24. The method of claim 22, wherein the receiving by point-to-multipoint  
10   manner is via a common channel.

25. The method of claim 18, wherein a multicast service is a service that is received by a specified plurality of users.

15           26. The method of claim 25, wherein the multicast service is multimedia broadcast / multicast service (MBMS).

27. The method of claim 18, wherein the header decompressing is performed at a packet data convergence protocol (PDCP) entity.

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28. In a radio communication system for providing and receiving data of a multicast service, a radio network controller comprising:

        a header compressing portion that performs Internet protocol header compression; and

25           a transmitting portion, operatively connected with the header compressing

portion, that transmits the header compressed data in point-to-point manner and in a point-to-multipoint manner depending upon a threshold value, to one or more users of the radio communication system.

5           29. The radio network controller of claim 28, wherein the header compressing portion is a packet data convergence protocol (PDCP) entity.

          30. The radio network controller of claim 28, wherein the header compressing portion respectively performs header compression for each type of  
10   multicasting service to be provided.

          31. The radio network controller of claim 29, wherein the transmitting portion is a serving radio network controller (SRNC).

15           32. The radio network controller of claim 31, wherein the SRNC transmits via a dedicated transport channel.

          33. The radio network controller of claim 29, wherein the transmitting portion is a controlling radio network controller (CRNC).

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          34. The radio network controller of claim 33, wherein the CRNC transmits via a common transport channel.

          35. In a radio communication system for providing and receiving data of a  
25   multicast service, a user equipment comprising:

a receiving portion, that receives in a point-to-point manner and in a point-to-multipoint manner, Internet protocol header compressed data; and

a header decompressing portion, operatively connected with the receiving portion, that decompresses the header compressed data to access the multicast

5 service.

36. The user equipment of claim 35, wherein the header decompressing portion is a packet data convergence protocol (PDCP) entity.

10 37. The user equipment of claim 35, wherein the header compressing portion respectively performs Internet protocol header compression for each type of multicasting service to be provided.

38. The user equipment of claim 35, wherein the receiving portion  
15 receives the data in a point-to-point manner from a serving radio network controller (SRNC).

39. The user equipment of claim 38, wherein the receiving portion receives via a dedicated transport channel.

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40. The user equipment of claim 35, wherein the receiving portion receives the data by a point-to-point manner from a serving radio network controller (CRNC).

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41. The user equipment of claim 40, wherein the receiving portion

receives via a common transport channel.

42. A method for providing multicast services in a radio communication system, the method comprising:

5 performing Internet protocol header compression to form header compressed data; and

transmitting the header compressed data in a point-to-multipoint manner according to a type of multicast service to one or more users in the radio communication system.

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